

### **REMARKS**

Claims 1-29 are pending. Claims 1-29 are rejected in the current Office action. Reconsideration of the application in view of the following remarks is respectfully requested.

#### ***Double Patenting Objection***

On page 2 of the Office action, claim 1 of the current application is objected to as being in conflict with claim 1 of Shanahan, Application No. 10/713,592. Claim 1 of Shanahan recites, "A process for creating a filter for selecting documents, comprising: identifying a plurality of profiles; creating a sub-filter for each of said plurality of profiles, each of said sub-filters having an input and an output; connecting each of said inputs at a single node; and combining each of said outputs."

The form paragraph used in making this objection directs applicants to MPEP § 822 entitled, "Claims to Inventions That Are Not Distinct in Plural Applications of Same Inventive Entity." MPEP § 822 states that the offered form paragraph should be included when the conflicting claims are identical or conceded by applicants to be not patentably distinct.

It is respectfully submitted that neither of these criteria are met because the claims are clearly not identical, and applicants do not concede that the claims are not patentably distinct because each of the cited claims contains features not present in the other. For example, claim 1 of Shanahan contains at least the features: each of said sub-filters having an input and an output; connecting each of said inputs at a single node; and combining each of said outputs, none of which are present in claim 1 of the current application. Similarly, claim 1 of the current application contains at least the features: identifying a first set of documents from a training set of documents; identifying a first profile corresponding to said first set of documents; identifying a second set of documents and a third set of documents from said training set of documents; identifying a fourth set of documents from said third set of documents; and identifying a second profile corresponding to said fourth set of documents, which are not present in claim 1 of Shanahan. Because each of these claims contains features which are not present in the other, the claims are patentably distinct. Therefore, it is respectfully submitted that the objection to claim 1 of the current application based upon claim 1 of Shanahan is improper, and it is respectfully requested that the rejection be withdrawn.

***Claim Rejections Under 35 U.S.C. § 103(a)***

On page 2 of the Office action, claims 1-29 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Evans (U.S. Pat. No. 6,115,706A) and Lang (U.S. Pat. No. 5,867,799). These rejections are traversed as follows.

Regarding independent claim 1, claim 1 recites a process for creating an ensemble filter. Once created, the filter is used to select documents that satisfy the filter's criteria. In rejecting claim 1, examiner relies on Evans. Evans discloses an approach for retrieving information wherein a query is processed generating a score for each of a set of sub-documents wherein the sub-documents receiving the best scores are retrieved and displayed. There is clearly a disconnect here as Evans discloses systems and methods for handling the retrieval and display of documents which meet the criteria of a filter while independent claim 1 recites a process for creating the filter. The claim elements are addressed individually to show that the combination of Evans and Lang fails to disclose all of the features of claim 1.

The examiner first cites the abstract of Evans as anticipating the claimed feature, identifying a first set of documents from a training set of documents. More specifically, the examiner cites the subdocument with the highest relevance score as depicting this feature. It is respectfully submitted that the subdocument with the highest relevance score is not equivalent to identifying a first set of documents from a training set of documents. This is immediately clear by visualizing the time at which the method of claim 1 is performed versus the time when the cited portion of Evans is performed. The method of claim 1 is related to the development of a filter. The method utilizes a set of training documents in the creation of the filter. In contrast, the cited subdocument with the highest relevance score of Evans is a result document discovered following the execution of a query. It is nonsensical for a result document to be used in the initial creation of the filter for that query. Thus, based on the position in the timeline of a search alone, it is clear that the subdocument with the highest relevance score cannot be identified as the first set of documents from a training set of documents.

Additionally, Evans makes no mention of a training set of documents from which the first set of documents originates as is required by the language of claim 1. The word "train" does not appear in the Evans reference. This is because Evans does not deal with the creation of a filter utilizing a training set of documents, but instead deals with retrieval of information based on a

filter. Training documents are used in creating a filter. Documents with the highest relevance score correspond to the execution of the filter.

The examiner next cites the subdocument that best matches the query as corresponding to the second feature of claim 1 of identifying a first profile corresponding to said first set of documents. Again, this is nonsensical in that it is citing a result document as anticipating a feature which is used to initially create a filter. Further, there is no teaching in the cited portion of Evans which equates the subdocument that best matches the query with a profile. One embodiment of a profile is disclosed in paragraph [0004] of the current application. This passage discloses an information profile which consists of three key elements: (1) a set of features, often in the form of a term vector, (2) a set of one or more weights or statistics associated with each feature, (3) a scoring threshold. The first two elements are used by the system with a scoring function to assign a score to the document, and the third is used to make the decision whether to accept or reject the documentation as relevant or not relevant to the user's information need. Evans does not teach a profile like this or anything similar. Additionally, the word profile does not appear in Evans. Thus, it is respectfully submitted that Evans does not teach identifying a first profile corresponding to said first set of documents as required by the claim language.

The examiner further cites the abstract of Evans as disclosing identifying a second set of documents and a third set of documents from said training set of documents, identifying a fourth set of documents from said third set of documents. It is submitted that these elements are not disclosed by Evans for the same reasoning as offered for the feature of identifying a first set of documents from a training set of documents. Further, it is submitted that Evans fails to teach identifying a second profile corresponding to said fourth set of documents for the same reasoning as offered for the feature of identifying a first profile corresponding to said first set of documents.

Because the combination of Evans and Lang fails to teach the features of claim 1 including identifying a first set of documents from a training set of documents; identifying a first profile corresponding to said first set of documents; identifying a second set of documents and a third set of documents from said training set of documents; identifying a fourth set of documents from said third set of documents; and identifying a second profile corresponding to said fourth

set of documents, it is respectfully submitted that the rejection under 35 U.S.C. § 103(a) is improper. Therefore, it is respectfully requested that the rejection of claim 1 be withdrawn.

Independent claims 10, 19, 28, and 29 contain similar features to those recited in independent claim 1 and are rejected under 35 U.S.C. § 103(a) based on Evans and Lang. Because Evans and Lang fail to teach at least the common features discussed above in relation to claim 1, it is respectfully submitted that the rejection of claims 10, 19, 28, and 29 based upon Evans and Lang is improper and should be withdrawn based upon similar reasoning as that offered for independent claim 1.

Concerning dependent claim 4, the examiner rejects claim 4 on page 4 of the Office action stating that the combination of Evans and Lang discloses the elements of the claimed invention as noted and further discloses cascading said first sub-filter and at least one remainder sub-filter to create at least part of said ensemble filter. The examiner cites Figure 2 of Lang as disclosing this feature.

Cascade filters are discussed in paragraph [0171] of the current application. A cascade filter is an ensemble filter that consists of an ordered list of filters, where each filter consists of two outputs, one corresponding to the positive class and the other corresponding to the negative or fallout, or remainder class. Each constituent filter is linked to the fallout, or remainder class of the prior filter via the fallout, or remainder channels. Each component filter accepts as input the source features that describe the document. Should any filter accept the document, processing for this document terminates and the document is accepted by the ensemble filter. Otherwise, the subsequent filter processes the document in a similar fashion. This process repeats until either some constituent filter has accepted the document or no filter has. It is submitted that Figure 2 of Lang does not disclose a cascade filter. Instead, Figure 2 of Lang discloses a set of filters, each of which narrows the pool of potential matches. None of the filters of Figure 2 of Lang can independently accept a document or pass rejected documents to the next filter as can be accomplished in a cascade filter. Because Figure 2 of Lang fails to disclose a cascade filter as required by the language of claim 4, it is respectfully submitted that the rejection of claim 4 under 35 U.S.C. § 103(a) based upon Evans and Lang is improper and should be withdrawn.

Similar language reciting cascade filters is present in dependent claims 6, 7, 13, 15, 16, 22, 24, and 25. Therefore, it is respectfully requested that the rejections of these claims be withdrawn for similar reasoning as that offered for claim 4.

Concerning dependent claim 5, the examiner rejects claim 5 on page 5 of the Office action stating that the combination of Evans and Lang discloses the elements of the claimed invention as noted and further discloses multiplexing said first sub-filter with at least one remainder sub-filter to create at least part of said ensemble filter. The examiner cites Figure 2 as disclosing this feature, specifically community filter 27a and community filter 27b.

Multiplex filters are discussed in paragraph [0110] of the current application. A multiplex filter is illustrated in Figure 5a. This filter is made up of constituent filters which accept or reject a document based upon some interpretation of the independent scoring of each constituent filter. That is, each component filter accepts as input the features and associated values that describe the document and scores them against the component filter profiles. The individual filter scores are then aggregated using a function. This score is used to determine whether to accept or reject the document. It is submitted that Figure 2 of Lang and community filters 27a and 27b do not disclose a multiplex filter. Nowhere in any of the cited portions of Lang are filters used to individually examine a document and then aggregate the scores of these examinations to determine whether to accept a document. Because neither Evans nor the cited portions of Lang discloses a multiplex filter as required by claim 5, it is respectfully submitted that the rejection under 35 U.S.C. § 103(a) is improper. Therefore, it is respectfully requested that the rejection be withdrawn.

Similar language reciting multiplex filters is present in dependent claims 8, 9, 14, 17, 18, 23, 26, and 27. Therefore, it is respectfully requested that the rejections of these claims be withdrawn for similar reasoning as that offered for claim 5.

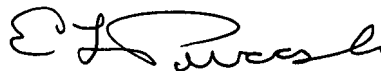
Applicants at this time have not submitted any arguments in support of the patentability of the other dependent claims. It is believed that the argued independent and dependent claims are now in condition for allowance such that all of the dependent claims which depend either directly or indirectly therefrom are also in condition for allowance.

Certain changes have been made to the specification to correct obvious errors. No new matter has been entered.

### **Request for Interview**

Applicants have made a diligent effort to place the instant application in condition for allowance. If the examiner is of the opinion that the instant amendment does not place the pending claims in condition for allowance with respect to the art of record, the examiner is respectfully requested to contact applicants' attorney at the telephone number listed below so **that an interview may be scheduled before the issuance of a final Office action rejecting the claims based on the art currently of record.**

Respectfully submitted,



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